BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2018-319-E

In the Matter of:)	
)	DIRECT TESTIMONY OF
Application of Duke Energy Carolinas, LLC)	RETHA HUNSICKER
For Adjustment in Electric Rate Schedules)	FOR DUKE ENERGY
And Tariffs)	CAROLINAS, LLC
)	

I. <u>INTRODUCTION</u>

- 2 O. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Retha Hunsicker and my business address is 400 South Tryon
- 4 Street, Charlotte, North Carolina.

- 5 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
- 6 A. I am employed by Duke Energy Business Services, LLC as Vice President,
- 7 Customer Connect-Solutions.
- 8 Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL
- 9 **QUALIFICATIONS.**
- 10 A. I hold a Bachelor of Science degree in Business Administration from Indiana
- Wesleyan University.
- 12 Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.
- 13 A. Since 1981, I have been employed by, and worked for, companies under what
- is now Duke Energy Corporation ("Duke Energy"). I began my career with
- Public Service Indiana, the predecessor to Duke Energy Indiana, Inc., as an
- Accounting Assistant. Since then I have held positions with increasing levels
- of responsibility. More recently, over the last ten years, I have held several
- roles including Director, Business Standards and Integration and General
- Manager, Smart Energy Systems and Processes. In 2012, I took the position
- 20 of Regional Director, Customer Services, leading our Midwest contact centers
- before promoting to Vice President, Customer Contact Operations, in 2013. I
- assumed my current role as Vice President Customer Connect-Solutions in
- 23 2015.

Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS VICE PRESIDENT 1 CUSTOMER CONNECT-SOLUTIONS.

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- 3 A. I have executive management oversight for the Customer Information System ("CIS") consolidation project (known as Customer Connect), including the 4 planning, execution and deployment. This program is responsible for the 5 successful deployment of a new customer platform that will enable the 6 7 functional capabilities needed to meet our strategic purpose of powering the lives of our customers by transforming how we serve them. 8
- Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION 9 OR ANY OTHER REGULATORY BODIES? 10
- I have not testified before this Commission; however, I have testified for Duke 11 A. Energy Carolinas ("DE Carolinas" or the "Company") and Duke Energy 12 Progress, regarding Customer Connect, in their most recent rate cases in North 13 14 Carolina before the North Carolina Utilities Commission in Docket Nos. E-7, Sub 1146 and E-2, Sub 1142, respectively. 15

II. PURPOSE OF TESTIMONY

- 17 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?
- 18 A. The purpose of my testimony is to discuss the CIS used by Duke Energy 19 Carolinas LLC ("DE Carolinas" or the "Company") and explain why it is necessary to convert that CIS into a modern customer service platform. 20
- 21 Q. PLEASE SUMMARIZE YOUR TESTIMONY.
- In my testimony, I describe the Company's ongoing plans to modernize its 22 A. 23 CIS to simplify experiences for our customers and strengthen the Company

- through modernized technology and increased efficiencies. I also discuss the projected costs and the revenue requirement we are seeking in this case to support this major--and necessary--technological upgrade.
- 4 Q. WAS HUNSICKER EXHIBIT 1 PREPARED BY YOU OR UNDER
 5 YOUR DIRECTION AND SUPERVISION?
- 6 A. Yes, it was.

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III. CURRENT CUSTOMER INFORMATION SYSTEM

8 Q. PLEASE EXPLAIN THE PURPOSE OF A CIS.

- A CIS manages the billing, accounts receivable, and rates for the Company and is the central repository for all customer information. It links the consumption and metering process to payments, collections, and other downstream processes including additional work order requests such as service connections and disconnections, outages and trouble requests. A CIS manages customer profiles and integration of data to provide a holistic view of the customer and should enable expected customer capabilities.
- 16 Q. PLEASE PROVIDE A GENERAL DESCRIPTION OF THE
 17 COMPANY'S EXISTING CIS.
- 18 A. The current CIS for DE Carolinas is a mainframe solution that was developed
 19 beginning in 1995 and put in service in 1997. The current CIS was designed
 20 as a premise-based system. That is, it was developed to communicate with the
 21 meter attached to a premise, without regard to who may be consuming the
 22 services provided through the meter or how they may be consuming those
 23 services.

Although state-of-the-art twenty years ago, the current CIS was not designed to efficiently support new capabilities, including personalized experiences for our customers, advanced pricing structures and billing options, and tools for customers to better manage their energy consumption. While we have added functions and newer technologies to the legacy system to try to meet business needs, the complexity of these add-ons continues to increase, thereby leading to more system disruptions and longer time to recover from outages. Moreover, certain functions are not compatible with the current CIS as further discussed below.

10 Q. PLEASE DESCRIBE SOME OF THE DEFICIENCIES WITH DE 11 CAROLINAS' CURRENT SYSTEM.

Because of the existing design limitations with the current CIS, complex billing functions must be done manually. Additionally, the system is not designed to enable automated billing for customers having distributed generation with net metering. Our current systems were not designed to produce a credit bill, so these customers receive bills containing charges that are calculated manually. These manual interventions are not desirable for a variety of reasons, including inefficiency. Furthermore, as the number of customers having these billing arrangements increases, there is an understandable impact on the Company's ability to provide timely and accurate bills. And it must be accepted that injecting manual intervention into what should be an entirely automated process creates an opportunity for unintended consequences.

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Additionally, the current CIS does not enable ready access to account histories that can be important in non-pay situations or when a customer is seeking to relocate within the Duke Energy jurisdictions. Consequently, a long-standing customer with a history of consistently paying bills on time and in full could be required to pay a security deposit as a condition of receiving service in a new home; a situation that could be avoided with improved access to account histories.

The current CIS does not enable the Company to identify a customer's preferred method of communication. Thus, a customer who consistently opts out of the interactive voice response unit ("IVR") in order to speak directly with a customer service representative must continue to go through, for them, an irritating process to obtain answers or information related to their utility service. Additionally, much of our customer base favors more modern communication channels, where information is almost immediately available. The current CIS does not enable these customers to employ their preferred methods of communication.

Q. CAN DE CAROLINAS SIMPLY RELY ON CONTINUED MODIFICATIONS OF THE EXISTING CIS TO MEET FUTURE NEEDS?

No. As a practical matter, the current limitations discussed above cannot be remedied with continued modifications, nor is continued investment to modify an antiquated technology platform practical or sustainable. CISs, like any other software solution, are subject to obsolescence, and like other technology

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and software, upgrades must be made periodically to meet customer expectations.

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DE Carolinas' current system must be replaced to provide a more stable platform, greater flexibility, ease of configuration and ability to offer more advanced rates and billing structures, as well as services to customers, than what is currently possible. Continued investment in an antiquated technology platform is neither practical nor sustainable, and would cost considerably more in the long run than replacing the system in its entirety. Customer information systems, just like any other software solution, periodically require replacement to deliver on capabilities required by business operations, and more importantly, customers.

IV. <u>CUSTOMER CONNECT PLATFORM</u>

13 Q. PLEASE DISCUSS HOW A MODERN CIS WILL BENEFIT DE 14 CAROLINAS CUSTOMERS.

- Through the consolidation of the old CIS into Customer Connect, DE Carolinas will be able to deliver a customer experience that will simplify, strengthen and advance our ability to serve our customers. Key benefits of Customer Connect and associated customer experience implications include the following:
 - Modern, Configurable Billing Engine With the Company's existing CIS, many new rates are not practical or are very time consuming to implement due to the antiquated architecture of the system and the complexity of coding and testing the rates. In contrast, the modern

CIS will be configurable and much simpler to implement, improving the Company's responsiveness to regulatory or market changes. Also, many modern rate structures (e.g., net metering, time-of-use, etc.) are pre-built into the system because of the software's experience being leveraged in European and other markets that are far more advanced.

- System was designed as a premise-based system. Customer Connect will have a customer-centric data model to enable a "one customer" view across Duke Energy, enabling the Company to know the customer better and provide a more streamlined, personalized experience.
 - Holistic Customer Profile In current state, systems merely store basic customer information name, phone, address, premise and historical usage, billing and payment information preventing us from knowing our customers beyond these basic attributes. Customer Connect will store all of that same information and more. The new platform will gather all of the relevant touchpoints that customers are having with Duke Energy in real time web visits, phone calls, power outages, outbound communications, product and service participation, etc. to build out a holistic view of customers that can be leveraged to better serve them and personalize their experiences.
- Integrated Analytics This customer profile data is then leveraged by
 the integrated analytics capabilities of the new platform to personalize

experiences and better serve customers through every channel. For example, the new platform will predict the intent of customers when they call Duke Energy, thereby improving their experience in the IVR and routing them to the customer care representative best suited to meet their needs. This same capability can be leveraged to prioritize what information is conveyed to the customer and in the medium preferred by the customer, whether it is via web, email or other channels, to ensure it is timely, relevant and valuable to them. These are just two examples of the multiple opportunities to leverage real-time analytics to improve our customers' everyday experience with Duke Energy.

Multi-Company - In current state, customers exist as separate entities across jurisdictions. When a customer moves from one jurisdiction to another, all information about that customer is lost - account numbers, communications preferences, payment and credit history, product and service participation, etc. Customers do not understand why this happens and are frustrated by the experience. In the future, these types of account attributes remain at the customer level throughout their experience with Duke Energy as they move between locations and jurisdictions.

Q. PLEASE DESCRIBE HOW THE COMPANY IS INCORPORATING CUSTOMER NEEDS AND EXPECTATIONS AS IT RELATES TO THE DESIGN AND IMPLEMENTATION OF CUSTOMER CONNECT.

Based on the collective experiences with its current CIS, the Company knew the selected platform would need to meet the following core needs: (1) configurability; (2) adaptability; and (3) a customer-centric platform, not simply a meter-to-cash replacement. As a result of the extensive procurement process we conducted, the Company is confident the selected SAP platform meets these core needs. For example, this platform has been implemented by more than 760 utilities globally, including utilities that have already implemented things such as renewable generation and advanced metering infrastructure (AMI), and are using its full capabilities. By selecting the SAP platform, the Company and its customers will get the benefit of the technology as well as the ability to leverage best practices from these other utilities to keep pace with the needs and expectations of our customers. Further, because this platform is being used globally by utilities and retailers, the SAP platform is constantly evolving and being updated to accommodate the latest technologies and user interfaces to help ensure that customers continue to derive benefits from the system.

The Company recently completed the Plan and Initiate (<u>i.e.</u>, Analysis and Design) phase for the Customer Connect platform. As such, the Company has leveraged industry research to generally understand customer expectations and will leverage these insights as input to our functional and technical design. Industry research confirms that customer expectations are changing; they are more fluid and consumers benchmark us against other customer service companies such as Amazon and FedEx, where there is transparency

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and awareness in their processes. For example, customers have come to expect the capability to track our packages and see, at any given moment, where the package is and when it is projected to be at their home. Carolinas understands its customers have come to expect the same thing from all service providers, including their utility, and is confident the SAP platform gives the Company the technology it needs to meet this expectation. To that end, during the Design phase, the Company will take an opportunity to redesign outdated business processes that have been in place for more than 20 years. For example, the Company's current CIS requires Customer Care specialists to obtain information such as directions to a customer's home and the location of the meter when completing a request to start or stop service. With the deployment of AMI meters, as well as common technologies, like GPS, obtaining this information is no longer necessary. Although this information is no longer needed for service orders, the Company's system and internal processes have not evolved to allow for these efficiencies. The Company firmly believes this platform provides an opportunity to further shape its future for the benefit of customers.

Finally, the Company has and will continue to survey customers to understand the value they are receiving from the new platform. For example, the Company has performed consumer testing to gather customer feedback on the design of the Company's new bill format.

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1 Q. WILL THE NEW SYSTEM ALLOW FOR MORE FLEXIBLE RATE

DESIGN AND OTHER RATE OFFERINGS?

- 3 A. Yes. As mentioned above, DE Carolinas' system requires significant coding to implement new rates and pricing. The system changes tend to be complex, 4 expensive and time-consuming. Indeed, the system is so burdensome that the 5 Company has consulted with outside vendors to manage billing for new rate 6 7 structures. New modern CISs are more configurable, reducing the amount of time to test and implement pricing changes and offerings. As referenced in 8 Witness Pirro's testimony, the deployment of Customer Connect combined 9 with the nearly complete installation of AMI meters across the Company's 10 11 service territory will unlock the tools required to bill innovative rate designs 12 using interval level data to customers.
- 13 Q. HOW LONG WILL IT TAKE TO FULLY IMPLEMENT THE SYSTEM

 14 FOR DE CAROLINAS?
- 15 A. The Customer Connect Program began the Plan and Initate phases (Analysis and Design) in January 2018, and is planned to be placed in service for DE Carolinas in 2022.
- 18 Q. WILL THERE BE ANY BENEFICIAL IMPROVEMENTS FOR
 19 CUSTOMERS PRIOR TO FULL DEPLOYMENT FOR DE
 20 CAROLINAS?
- 21 A. Yes. The Company began deploying new capabilities this year and will 22 continue every year leading up to full deployment in 2022. With this phased 23 deployment approach, the Company will have system functionalities in-

service and beneficial to customers at tiered stages throughout the 2 implementation of the complete system.

Q. PLEASE ELABORATE.

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In June 2018, Customer Connect deployed its first release, which foundational to the Program. The Company delivered value early by providing a toolset to begin to know customers better; advanced the overall journey by proving out the solution capability and the team's ability to deliver; and accelerated the foundation for the advanced data conversion capability. This release is foundational to building a holistic customer profile, gathering all relevant touchpoints that customers are having with Duke Energy in real time, such as web visits, phone calls, power outages, outbound communications, and product and service participation. The Company also gained the ability to execute automated marketing campaigns and more targeted communication campaigns to better serve customers and personalize their experience.

The platform will be leveraged to provide real-time insights to enhance the customer experience. One example of this is how the Company can leverage these insights to enhance operations during significant storm events. With this new platform, data can be visualized in new ways to uncover insights into experiences customers are having across the Company's phone, web and social media channels. The Company can also leverage the automated, targeted marketing capabilities to increase effectiveness of

communication campaigns during major storm events and for other
operational needs.
In late 2018, the Company will continue to build on automated
marketing and more personalized communication capabilities to include
automated email, social media and text communication campaigns and
improved speed and effectiveness of campaigns.
In 2019, the Company will build on the holistic customer profile,
improving its ability to communicate with customers and begin to engage with
them in new ways. Examples of new and/or improved capabilities that
customers will experience with this release include the following:
Streamlined Customer Service Experience -
Leveraging insights from the holistic customer profile, the Company
will be able to use the new platform to predict the intent of customers
when they call improving their experience with Duke Energy.
In addition, the interaction tracking data, as referenced above, will be
made available to customer care specialists, who will leverage it for
context into why a customer may be calling and to have a more
informed and productive conversation with the customer.
More Timely, Relevant and Valuable Communications -
The customer data will also be leveraged to prioritize the types of
information the customer prefers to receive and the methods of

communication by which they wish to receive the information,

1	including via web, email and other channels to ensure it is timely,								
2	relevant and valuable to them.								
3	• Improved Communication Campaigns -								
4	The Company will create improved communication campaigns to								
5	proactively provide important information about its customers' service.								
6	Examples could include information about power outages, planned								
7	outages and vegetation management (i.e., tree trimming).								
8	Additionally, in 2019, the Company had planned to implement core								
9	components of the complete meter-to-cash solution for a subset of customers,								
10	which would have also included the ability to offer new or existing products								
11	on a prepaid basis. However, after completing the detailed Plan and Initiate								
12	phases, the Company learned that complexities associated with interfacing								
13	systems were greater than originally planned, and this was work necessary to								
14	implement these early core components. Implementing these core								
15	components early would have added significant risk to the Customer Connect								
16	Program and therefore no longer met key objectives of the Program, to de-risk								
17	the Program, deliver value along the journey, and advance the final solution.								
18	As a result, the decision was made to shift these capabilities to align with the								
19	core meter-to-cash solution deployment in 2022.								
20	In early 2020, the Company will introduce a universal bill format to								
21	help customers more easily view and understand their bill and energy usage.								

Positioning this release prior to deployment not only delivers benefits to

customers sooner, but also allows the Company to more efficiently respond to

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increased call volume that will likely result as customers become more 2 familiar with the new bill format.

> In 2021, the Company will begin deploying the final components of the meter-to-cash solution. In addition to all meter-to-cash processes, the Company will begin providing customers with additional self-service capabilities and portals, new rate offerings and advanced billing options.

WHAT WILL BE DUKE ENERGY CAROLINAS' ESTIMATED COST Q. 7

FOR THE CIS IMPROVEMENTS?

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The estimated cost for DE Carolinas is \$285 - \$295 million, with approximately 50 percent reflecting the capital investment. Specifically for South Carolina, the costs will be between \$65 - 70 million as shown on Hunsicker Exhibit 1. The Company has executed fixed price contracts for the primary software (SAP), systems integration (Accenture) and change management professional services (Ernst and Young), following an extensive request for proposal process conducted in 2016.

HOW WERE THE FORECASTED EXPENSES DERIVED? Q.

The best and final offers from the RFP process were used as the foundation for the forecast, which include the cost of the executed contracts as well as the amount of internal labor the Company is required to provide to complete the scope of the contracts. Specific costs to cover activities beyond the scope of the contracts but within the scope of the program, such as the effort to modify more than 100 interfacing systems, were added, leveraging established program estimating techniques and assumptions. These forecasted expenses

were derived by members of the program team, each with extensive experience estimating and managing large-scale technology development programs similar to Customer Connect. The average O&M expense forecasted over the 2019-2020 period and attributable to DE Carolinas SC, which served as the basis for the incremental revenue requirement in this case, is approximately \$4.7 million. That amount includes these components:

- Costs directly correlated with the fixed fee contracts, totaling approximately \$ 1.0 million.
- As described above, the fixed fee contracts contain provisions requiring the Company to provide specific levels of labor to support execution of the work. Costs for the incremental labor required to support the scope of the fixed fee contracts total approximately \$0.3 million.
- Costs to develop each interface is within the scope of the fixed fee contract; however, the cost for any modifications required of the interfacing system is not within the scope of the fixed fee contract and represents a critical component of the overall program scope. Costs for the incremental labor required to modify the systems that the new Customer Connect solution will interface with total approximately \$0.1 million.
- Costs for effective oversight, governance and quality management for the program, totaling approximately \$0.3 million.

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 Costs for key leadership positions for the program, totaling approximately \$0.2million. These positions are filled and their costs are known.

- Costs for cleanup of existing data in preparation for conversion into
 the new platform that were estimated following extensive
 benchmarking that occurred with other utilities that had recently
 completed a similar project. These costs cover the activities associated
 with mitigating data conversion risks and total approximately \$0.2
 million.
- Costs to ensure service to customers is not adversely impacted during the deployment of the new platform. These include items such as the cost to deliver training to end users of the new platform, incremental staffing required to maintain adequate customer service levels, and the stabilization period immediately following deployment. These costs total approximately \$0.2 million.
- Costs to cover inflation and contingency that were forecasted using formal, established methods and were scrutinized and deemed appropriate by an independent estimate review committee commissioned by the Company's project management center of excellence. These costs total approximately \$1.8 million.

1 Q. WHAT AMOUNT OF THAT COST IS DE CAROLINAS PROPOSING

2 IN THIS CASE?

3 A. Due to the nature of the project costs, a significant amount of the spending between the Test Year and the in-service date will be operating and 4 maintenance ("O&M") expenses. Accordingly, in her testimony, Witness 5 Smith describes a pro-forma adjustment that increases the test year O&M 6 expenses associated with the project from \$0.7 million to \$4.7 million. This 7 increased amount is the average expected annual O&M associated with the 8 project over the next two years, from 2019 through 2020. Witness Smith also 9 10 seeks to amortize the deferred balance of O&M expenses incurred by the Company since January 1, 2018, approved by the Commission in Order No. 11 2018-552.1 12

13 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

14 A. Yes.

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¹ Petition of Duke Energy Carolinas, LLC for an Accounting Order to Defer Certain Capital and Operating Expenses, Docket No. 2018-207-E (August 7, 2018).

Customer Connect 2016 - 2018- 2023 Forecast

HUNSICKER EXHIBIT 1 Page 1 of 1 Docket No. 2018-319-E

(\$'s in thousands)

																		2019 - 2020
Category	Total	2016 Cap	2016 O&M	2017 Cap	2017 O&M	2018 Cap	2018 O&M	2019 Cap	2019 O&M	2020 Cap	2020 O&M	2021 Cap	2021 O&M	2022 Cap	2022 O&M	2023 Cap	2023 O&M	Avg O&M
Labor	\$38,565	\$0	\$1,341	\$0	\$640	\$2,626	\$3,701	\$8,494	\$3,619	\$6,455	\$3,002	\$1,473	\$2,299	\$1,212	\$2,501	\$33	\$1,169	\$3,310
Software Purchase	\$4,619	\$15	\$0	\$0	\$0	\$982	\$49	\$1,372	\$10	\$1,441	\$206	\$540	\$0	\$0	\$0	\$5	\$0	\$108
Hardware Purchase	\$956	\$0	\$0	\$0	\$0	\$739	\$0	\$162	\$0	\$55	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Software Maintenance	\$5,331	\$0	\$0	\$0	\$0	\$51	\$100	\$206	\$477	\$245	\$772	\$65	\$1,091	\$51	\$1,260	\$0	\$1,014	\$624
Hardware Maintenance	\$1,366	\$0	\$0	\$0	\$0	\$0	\$26	\$0	\$272	\$0	\$275	\$0	\$281	\$0	\$289	\$0	\$224	\$273
Other	\$1,499	\$0	\$0	\$0	\$0	\$45	\$74	\$101	\$48	\$88	\$218	\$59	\$402	\$49	\$327	\$8	\$82	\$133
Deploy Labor	\$3,816	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,104	\$1,712	\$0	\$0	\$0	\$0	\$0
Deploy Other	\$451	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$451	\$0	\$0	\$0	\$0	\$0
Operational Cost	\$6,152	\$0	\$0	\$0	\$0	\$0	\$47	\$0	\$205	\$0	\$227	\$0	\$2,635	\$0	\$2,733	\$0	\$304	\$216
Total DEC SC	\$62,755	\$15	\$1,341	\$0	\$640	\$4,443	\$3,997	\$10,334	\$4,630	\$8,285	\$4,699	\$4,241	\$8,871	\$1,311	\$7,110	\$45	\$2,793	\$4,665

2016 and 2017 reflect actual charges

Note: Includes contingency